

NH Tidal Energy Commission Meeting Minutes

NH Department of Environmental Services
Pease Field Office, Portsmouth, NH
January 18, 2008, 1:00 PM

Members:

Rep. Thomas Fargo, Co-Chair, City of Dover
Ken Baldwin, Co-Chair, UNH
Ted, Diers, Vice-Chair, NH Coastal Program
Rep. Roland Hofemann, Dover
Erik Anderson, NH Commercial Fishermen's Association
Cynthia Copeland, NHEP (Strafford Regional Planning Commission)
Sean McDermott, National Marine Fisheries Service
Otis Perry, Consumer Advocate Advisory Board
Tracy Shattuck, PDA - Division of Ports and Harbors
Eric Steltzer, Rockingham Planning Commission
Christopher Waszczuk, NH Department of Transportation

Other Attendees:

David Funk, Great Bay Stewards
Jim Irish, UNH
David Kellam, NH Estuaries Project
Christian Williams, NH Coastal Program
Craig Yankes, NH Sustainable Energy Association

Guest Speakers:

Rob Cinq-Mars, Free Flow Energy
Michael Hoover and Daniel Power, Oceana Energy Company

Summary:

Co-chair, Rep. Tom Fargo asked commission members for comments on the draft versions of the November 2, 2007 and December 7, 2007 meeting minutes. No comments were received. Co-chair Fargo then made a motion to approve the minutes. The minutes were unanimously approved by members. Final versions of the minutes will be posted on the commission's web page at http://des.nh.gov/Coastal/ocean_policy.html.

Co-chair Fargo then introduced Daniel Power, President and Chief Technology Officer, and Michael Hoover, Secretary, Treasurer and General Counsel, for Oceana Energy Company (OEC). Mr. Hoover gave a presentation summarizing OEC's proposal to install tidal in-stream energy conversion devices in the Piscataqua River. He briefly reviewed the nature of OEC's preliminary permit, issued by the Federal Energy

Regulatory Commission in April 2006, and OEC's next steps under the preliminary permit, including assessing the river's currents, identifying potential conflicts with existing river uses, ensuring technology compatibility, and performing economic analyses. He also discussed OEC's tidal in-stream energy conversion technology. Following the presentation, Mr. Hoover fielded questions from commission members.

Co-chair Fargo then introduced Rob Cinq-Mars of Free Flow Energy. Mr. Cinq-Mars gave a presentation entitled "Power & Energy Potential of the Piscataqua River." The presentation focused on a preliminary, rudimentary analysis of the data from Carl Kammerer's 2007 tidal current survey of 11 locations in the Piscataqua River. The objective of this analysis was to estimate the energy generating capacity at each location. Mr. Cinq-Mars analysis indicated that only 2-3 of the locations surveyed had strong enough currents for practicable energy generation. Discussion followed.

Erik Anderson, Commission representative from NH Commercial Fishermen's Association, asked if anyone present could explain what use limitations might be associated with security zones or property rights surrounding generation facilities deployed in the estuary. It was suggested that some combination of aids to navigation and fishing restrictions should be expected.

Dr. Jim Irish, of UNH, provided some insights reflecting his knowledge of tidal currents in the Piscataqua River and Great Bay Estuary. Dr. Irish suggested that flow out of the estuary, due to river discharges, creates significantly more generation potential on the ebb tide. Dr. Irish stated that more than 90% of the energy associated with the tides is located within the main river channel, making it difficult to maximize energy recovery while maintaining navigation. In areas outside of the main channel, eddies and turbulence create short-term variations in flow direction and velocity that inhibit efficient energy recovery.

Co-chair Fargo then provided members with a brief overview of the Energy Independence and Security Act of 2007 (H.R. 6). Title VI, Subtitle C (Marine and Hydrokinetic Renewable Energy Technologies) of the Act directs the Department of Energy (DOE) to create a research & development program focused on technology that produces electricity from waves, tides, currents, and ocean thermal differences. The Act also directs DOE to award grants to institutions of higher education to establish National Marine Renewable Energy Research, Development, and Demonstration Centers. Co-chair, Ken Baldwin, stated that UNH is in the process of establishing a Center for Ocean Energy, which will be well positioned to apply for funding under this legislation.

Co-chair Fargo then asked for updates from each of the commission's subcommittees. Chris Williams, chair of the Permitting Requirements Subcommittee, stated that the subcommittee met on January 9, 2008 to review and update the list of applicable laws and regulations identified in Appendix B of the commission's Initial Report, November 2007. He stated that the subcommittee had developed a draft revised list for review by commission members. Copies of the draft list were made available to commission

members. The draft list will also be posted on the commission's web page at http://des.nh.gov/Coastal/ocean_policy.html. There were no other subcommittee updates.

Co-chair Fargo stated that one topic of discussion at the next commission meeting will be whether the commission should expand the geographic scope of its review to areas beyond the Little Bay and General Sullivan Bridges.

The next commission meeting was scheduled for **Friday, February 15, 2008 at 1:00 PM at the NH Department of Environmental Services (DES) Pease Office in Portsmouth**. Directions to the NHDES Pease Office will be provided on the commission's web page.

Meeting was adjourned at 3:15 PM